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10/673,351

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Sean J. Hart

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EXAMINER

DRODGE, JOSEPH W

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* SEAN J. HART  
and ALEXANDER V. TERRAY

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Appeal 2008-1138  
Application 10/673,351  
Technology Center 1700

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Decided: March 10, 2008

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Before EDWARD C. KIMLIN, CHUNG K. PAK, and  
ROMULO H. DELMENDO, *Administrative Patent Judges*.

KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 11-18.

Claim 11 is illustrative:

11. A device comprising:

a PDMS body having a fluid pathway arranged to permit flow of a fluid in a first direction therethrough; and

a light input part arranged to accept input light and permit the input light to travel into said PDMs body and through said fluid pathway in a second direction opposite of the first direction.

The Examiner relies upon the following reference in the rejection of the appealed claims:

Dapprich	6,585,939 B1	Jul. 1, 2003
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Appellants' claimed invention is directed to a poly(dimethylsiloxane) (PDMS) body having a fluid pathway that is arranged to permit flow of a fluid in a first direction. The device also comprises a light input part that is arranged to permit the light to travel in the PDMS body through the fluid pathway in a direction that is opposite to the first direction of the fluid flow.

Appealed claims 11-18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Dapprich.

We have thoroughly reviewed the respective positions advanced by Appellants and the Examiner. In so doing, we find ourselves in agreement with Appellants that the Examiner has failed to establish a prima facie case of description within the meaning of § 102. Accordingly, we will not sustain the Examiner's rejection.

The Examiner acknowledges that Dapprich fails to describe a particular arrangement for the disclosed microstructures that allows for light to travel in a fluid pathway in a direction that is opposite to the direction of the fluid flow. It is the Examiner's position that Dapprich discloses light input part 62 that is operable to reverse or change the direction of light flow through the pathway, citing Fig. 9 of the reference, column 12, lines 22-58

and column 13, lines 30-44. The Examiner also states that Dapprich discloses "[a]dditional light input and light travel-causing parts/optical devices [that] include various lenses, mirrors and other reflecting and refracting surfaces, optical observers and optical scatterers that receive or input light and redirect light to flow in many different directions, inherently including directions opposed to directions of flow of fluid" (Ans. 5, first para., emphasis added). The Examiner cites Dapprich at column 12, lines 21 through column 13, line 28.

There is no question that Dapprich discloses microstructures for use in biological assays that may include a variety of optical elements, such as refractive and reflective structures, such as lenses and mirrors, and diffractive components such as input-coupler gratings, fresnel lenses, and holographic components. However, the flaw in the Examiner's rejection is that Dapprich fails to provide a clear description of a particular arrangement of any of the listed optical elements that allows for light to travel in a fluid pathway in a direction that is opposite to the direction of fluid flow. It is not sufficient to support a rejection under § 102 that the elements disclosed in Dapprich may be arranged in a specific device to meet the requirements of the claimed device. To support a rejection of the appealed claims under § 102, the Examiner must point to a specific description in the reference of a device wherein light travels in a fluid pathway in a direction opposite to the direction of the fluid flow. This the Examiner has not done. At best, the Examiner has pointed out that if an optical observer or scatterer is placed in the proper location in the reference device, light will travel in all directions

which necessarily include the direction opposite to the fluid flow. Absent a description in the reference of such a particular arrangement, the Examiner's position is based on a speculative possibility and not the inevitability that is required to support a rejection based on inherency.

In conclusion, based on the foregoing, we are constrained to reverse the Examiner's rejection.

REVERSED

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